IT Plan – Agency Operations

Agency: North Dakota Game and Fish Department

The mission of the North Dakota Game and Fish Department is to protect, conserve and enhance fish and wildlife populations and their habitat for sustained public consumptive and appreciative use.

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Technology Description:

The Game and Fish Department information technology operations apply to administration, development, maintenance and support for Department administrative services, conservation and communication, enforcement, fisheries and wildlife divisions. These technologies include hardware, software, database, web, security, network and telecommunications. Aspects of several of these services are provided by the Information Technology Department (ITD) and include network, hosting, security and telecommunications. The Department relies heavily on the performance of these services provided by ITD.

The Department continues to develop and enhance our web applications developed with PHP, Java, .NET and HTML. These run in Apache, Websphere and IIS environments and include the Department's website, online services and various Department applications. The Department website uses Drupal as a content management framework. Online services primarily consist of public revenue based applications such as licensing, lottery, watercraft registration, hunter education enrollment, and various registrations (HIP/ darkhouse spearfishing). The Department also manages various internal office applications including PLOTS, deer depredation, species surveys, etc. These applications are hosted on a shared environment at the ITD. Stability in the shared environments is important to Department business functions. In addition, the Department has two dedicated servers environments for Cody (law enforcement application) and Geocortex Essentials (GIS interactive map application).

Enterprise systems administered by the Department include Microsoft System Center Configuration Manager for desktop administration, security, setup and inventory. Symantec Endpoint Protection (SEP) and WAVE encryption are used as a security solution and provided by the ITD. The Department also utilizes much of the states GIS Hub infrastructure for storage of production spatial data.

The Department uses internal staff, private sector and ITD for various application development. Improvements are continually made for efficiencies with these applications and their interaction with other agency/information systems. These applications primarily work with SQL Server and Oracle databases hosted by ITD. The Department currently develops and maintains reporting information associated with these database systems.

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The Department uses Verizon for a cellular telecommunication solution. Deployed devices consist primarily of android with few iOS. These devices are primarily Department issued with limited BYOD. Hotspot and jetpack features are used for field staff requiring access to specific Department systems.

Department IT staff manage approximately 240 desktop, laptop and tablet devices. The Department targets a replacement cycle for primary equipment every four years. Where applicable, file history is used as a local backup solution. Additional backup solutions include network file and print services provided by ITD and offsite storage.

The Department IT section consists of four staff. Two staff responsible for administration, maintenance and support of hardware, software, network and communication functions; one staff for the analysis, development, maintenance and support of Department applications and programming. One staff responsible for the administration, development, maintenance and support of Department information systems including GIS, IT planning and budgeting, and the supervision of IT staff.

Planned activities: Planned activities include the Department's Customer Portal for online services, Geocortex Essentials, ArcGIS Online and various project enhancements for the 2015-17 biennium. The Department does not anticipate new projects for the 2015-17 biennium.

Technologies being watched or investigated:
The Department will continue to explore mobile applications and the optimization of our existing applications for this environment. We will monitor the maturity of mobile devices, tablets, etc., and determine where they may be applicable for Department business needs. The Department will continue to explore social media/blog options and determine the best way to integrate these options. The Department continues to use and evaluate vendor provided services with GovDelivery and ArcGIS online.